

CLAIMS

1. A measuring apparatus using a biosensor, which has a reaction layer which reacts with a substance to be measured in a sample solution, on a working electrode, a counter electrode, and a third electrode provided on an insulating substrate, so as to bridge the respective electrodes, wherein

the content of the substance to be measured is measured from a current value which is produced by a reaction between the substance to be measured and the reaction layer, which reaction is obtained between the working electrode and the counter electrode, and the types of sample solution are judged on the basis of an oxidation current value obtained between the third electrode and the counter electrode or between the third electrode and the working electrode.

2. The measuring apparatus using the biosensor of Claim 1 wherein

judgment between the types of sample solution based on the oxidation current value is made by comparing an oxidation current value obtained between the third electrode and the counter electrode or between the third electrode and the working electrode to a predetermined fixed threshold value.

3. The measuring apparatus using the biosensor of Claim 1

wherein

judgment between the types of sample solution based on the oxidation current value is made on the basis of the time variations of the oxidation current value obtained between the third electrode and the counter electrode or between the third electrode and the working electrode.

4. The measuring apparatus using the biosensor of Claim 1 wherein

the oxidation current value used for the judgment is the one which is measured at the point of time when a fixed time has further elapsed after the current value reaches a predetermined current value, which current flows between the third electrode and the counter electrode or between the third electrode and the working electrode.

5. A biosensor comprising:

a reaction layer which reacts with a substance to be measured in a sample solution so as to bridge the respective electrodes on a working electrode, a counter electrode, and a third electrode provided on an insulating substrate; and

a connection terminal which is electrically connected to the working electrode, the counter electrode and the third electrode, respectively, on the insulating substrate.

6. The biosensor of Claim 5 wherein
the third electrode consists of easily oxidized
materials as compared with the working electrode and the counter
electrode.
7. The biosensor of Claim 5 wherein
materials of the third electrode are the ones having lower
dissolution potential than a voltage applied to the biosensor.
8. The biosensor of Claim 7 wherein
materials of the third electrode are silver, copper, zinc,
or mixed materials including silver, copper, and zinc.
9. A biosensor's exclusive standard solution used for a
measuring apparatus using a biosensor, which apparatus measures
the content of the substance to be measured from a current value
which is produced by a reaction between the substance to be
measured and the reaction layer, which reaction is obtained
between the working electrode and the counter electrode, and
judges types of sample solution on the basis of an oxidation
current value obtained between the third electrode and the
counter electrode or between the third electrode and the working
electrode, by using a biosensor providing a reaction layer which
reacts with a substance to be measured in a sample solution so
as to bridge the respective electrodes on a working electrode,

a counter electrode, and a third electrode provided on an insulating substrate, wherein

a substance which suppresses oxidation current obtained by an oxidation of the third electrode is merged.

10. The biosensor's exclusive standard solution of Claim 9 wherein

a substance which suppresses oxidation current obtained by an oxidation of the third electrode is organic acid.

11. The biosensor's exclusive standard solution of Claim 10 wherein

the organic acid is at least one of benzoic acid, citric acid, salicylic acid, sorbic acid, dehydroacetic acid, propionic acid.